



ZdravReform/ЗдравРеформа

Integration of Infectious Diseases into Primary Health Care

**January 1-June 30, 1999
Activities Report for
Kazakhstan and Kyrgyzstan**

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Introduction

Incorporation of infectious diseases case management including acute respiratory infection and childhood diarrheal diseases (ARI/CDD) is a logical step in the development of the Family Group Practice (FGP) as the vehicle for delivery of primary care. As part of this effort, USAID has been providing special funds to Abt Associates Inc.'s ZdravReform program, starting in July 1997 to assist in the integration of modern infectious diseases case management into Kazakhstan and Kyrgyzstan² USAID supported health care reform pilot sites.

Family (or general) Medicine is a new area of practice for Kazakhstan and Kyrgyzstan. This has necessitated the creation of family medicine training programs in both countries. These programs are designed to train former specialists such as pediatricians, gynecologists and internists in the broader field of general medicine. This training includes modern clinical practices in ARI/CDD, tuberculosis, and sexually transmitted diseases. These training's are based on internationally recognized materials from WHO, UNICEF and BASICS.

The creation of Family Medicine practitioners necessitates the development of practice sites for these doctors to work, such as the Family Group Practice (FGP). The ZdravReform program continues to support technically the development of the FGP structure as well as the needed financing reforms. It needs to be clear that there can be no development of modern infectious diseases case management if at the same time there is not development of the primary care sector itself. A solid foundation must exist to allow the newly trained doctors and nurses to practice.

In order to train practitioners to work in the newly developed FGP, there needs to be a proper training mechanism. The goal is to create sustainable training institutions; therefore ZdravReform supports development of local capacity to provide future training in infectious diseases as well as family medicine. In Kazakhstan, this is taking place in the development of chairs of family medicine at 8 medical schools; and in Kyrgyzstan, it is taking place by use of "Centers for Excellence" which are affiliated with the Postgraduate Training Program at the Medical Academy. During the January-June period of this report, this support continued.

Tuberculosis (TB), Kazakhstan and Kyrgyzstan

Background

In response to the Government of Kazakhstan's request for assistance in implementing a tuberculosis DOTS program nation-wide, USAID decided to participate in a phased-in approach.

- Phase I involved the development of 4 USAID supported pilot sites in Almaty oblast (region). This was started previously when the government was willing to accept the slow, careful approach as recommended by WHO and USAID implementing

² USAID/ZdravReform's Uzbekistan pilot has never received specific infectious disease earmarks, thus is not included in this report. Details about the Uzbek program can be found in the monthly and semi-annual reports.

partners. The plan is to continue support of these existing pilot sites and try to learn from them.

- Phase II involves the support and creation of 17 additional pilot sites (demonstration projects) in the oblast centers and 3 major former TB dispensaries. This is in response to national political pressure to fight the tuberculosis epidemic with a large-scale effort. This will give every oblast the opportunity to begin implementing DOTS on a pilot basis (on the territory of one central raion). Since oblast centers are urban areas, it should also provide immediate help in decreasing transmission of tuberculosis.
- Phase III, an expansion of DOTS from the oblast pilot sites into the raions could be done in subsequent years through use of World Bank support and Republic of Kazakhstan support

Activities

Significant work was done on *health promotional* activities, both for the public and for the health care workers. These efforts match the general ZdravReform strategy of introducing preventive practices in the primary care reforms.

A *TB patient education brochure* was developed and printed by ZdravReform, with technical input from Project HOPE, WHO and CDC. 300,000 copies of the brightly colored and artistically rendered design is being distributed to the FGPs and other outpatient facilities to alert patients to the signs and symptoms of TB. The brochures were carefully tested through focus groups, and are available in Russian, Kazakh and Kyrgyz. They will be split between Kazakhstan and Kyrgyzstan.

One thousand *TB Laboratory safety posters* were designed and printed by Zdrav-reform with technical input from CDC and TB Institute. The purpose of the posters is the education of tuberculosis laboratory workers in safe handling of patient samples, and in general laboratory safety. These posters will be distributed in both Kazakhstan and Kyrgyzstan.

In Kazakhstan, the *patient oriented video* on tuberculosis developed by ZdravReform last year is being distributed to television stations in each oblast, whenever the Project HOPE training team visits. In addition, sets of TB posters on DOTS and for patient education (designed and printed by ZdravReform last year) are distributed by the training team. The video was also issued to television stations this spring, as part of a second journalism campaign being implemented by ZdravReform and the Kazakhstan Center for Healthy Lifestyles.

In Kazakhstan, USAID provided special equipment funds to ZdravReform. The *purchase and delivery of TB laboratory equipment and office equipment* (computer, fax, modem, copy machine etc) for the 17 Kazakh pilot sites was recently completed. The delivery of this equipment is part of the implementation of DOTS nationwide through the development of pilot sites which USAID has been supporting since last autumn. The U.S. Ambassador, Richard Jones formally presented the equipment to the Dr. Kuserbaev, Minister of Health, Education and Sports at a *press conference* arranged by USAID and ZdravReform at the City Tuberculosis Dispensary in Almaty. Follow-up on the equipment delivery was done through a questionnaire and letter given to each TB pilot site head at a TB seminar in IssykKul. This survey showed that the

equipment had been delivered, but there is a problem with setting up the microscopes. ZdravReform is currently working with the microscope supplier, Leica, on solving this issue.

Reagents (phenol, methylene blue, hydrochloric acid and fuscine) were ordered in sufficient quantity to supply each Kazakh pilot site with one year's worth of materials to do smear microscopy.

ZdravReform continues to collaborate closely with Project HOPE on the *training* of the oblast health care workers in DOTS. The financing of the Project HOPE training and evaluation teams is handled through the ZdravReform office. During the period from October 1998 to June 1999, 745 doctors and laboratorians have been trained in DOTS with the Project HOPE/ZdravReform collaboration. Also, more than 640 teachers, students of medical academies and universities have participated in lectures on DOTS.

In terms of *collaborative efforts* with donors and other implementers, ZdravReform provided input to the World Bank mission visited Kazakhstan in May during a donor/collaborator meeting. ZdravReform was able to offer considerable input to the World Bank's procurement list for tuberculosis laboratory consumables and help prevent duplication between the USAID and World Bank assistance. ZdravReform also works with WHO and Medecins Sans Frontiers, as well as the USAID funded partners, Project HOPE and CDC.

ZdravReform pharmacologist worked on a *national tuberculosis drug tender* for Kazakhstan in May and June. USAID Regional Mission for Central Asia, through RPM project (Management Sciences for Health) and Abt Associates provided technical assistance to the Ministry of Health Education and Sport of the Republic of Kazakhstan in preparing technical tender documents consistent with the international tender standards for the second state tender. The second tender for anti-tuberculosis drug purchasing was held on June 22 -23, 1999 in Almaty. The Government of Kazakhstan has allocated 274,000,000 tenge (\$2,075,000) to purchase anti-TB drugs this year.

The drugs finally selected met the Good Manufacturing Practices (GMP) standards. Because of the high requirements of the Instruction, many firms could not meet the international standards and could not participate in the tender. Last year the winners of the first tender were non-reputable manufactures from India and Pakistan. In comparison, it is felt that this year's was a success in terms of meeting international standards.

Sexually Transmitted Diseases (STD), Kazakhstan

Background

Sexually transmitted diseases are currently treated through a system of STD dispensaries. These dispensaries represent a separate vertical structure, which requires a separate budget and physical structure. There are too many workers, and too many buildings. There is reluctance on the part of the public to use these facilities. Especially on the raion level, the laboratory system is deteriorated and barely functioning. Meanwhile the rate of STDs continues to rise. WHO and UNAIDS have

been working in CAR on inclusion of principles of syndromic case management into policy, and inclusion of the primary health care workers as partners in the war on STDs.

Activities

A seminar was arranged and funded by ZdravReform in the Karaganda oblast STD facility on May 4-6, 1999 for the Heads of STD dispensaries and STD specialists of Astana city, Akmola oblast, Kustanai, Kokshetau, Petropavlovsk, Zhezkazgan, Temirtau and Karaganda. Leading specialists from the National STD Institute were invited to facilitate the seminar. The total number of participants was 26.

The main objective of the *seminar was to explain the WHO recommended syndromic case management of sexually transmitted diseases for use by the primary health care providers*, as an efficient and cost effective way to prevent the prevalence of STDs in Kazakhstan. This seminar follows the official governmental approval of the National Program on STD prevention and control in Kazakhstan for 1997-2000, which was developed with the assistance of WHO and UNAIDS.

The seminar lasted for three days. During the first day, Professors A. Kosukhin, MD, Ph.D., and S. Nurusheva, MD, Ph.D. provided lectures on the issues. The second day was devoted to a practical seminar on syndromic case management. During the last day, the participants played role games, aimed at better understanding of their goals as trainers for FGP physicians on the issues of STDs. In the process of training the participants asked many questions and there was also a big discussion on the issue of allowing primary care doctors to diagnose and treat STDs using the syndromic approach.

This seminar was important in that it was the first time STD specialists seriously had to consider the possibility of rationalization for the existing STD dispensary system. Dr. Kosukhin, as the Head of the Central laboratory of the STD Institute and the leading national lab specialist, presented an evaluation of actual capacity in oblast STD labs and justified the syndromic approach for STDs management on the primary level. Dr. Kosuchin was very persuasive and was so armed with scientific and factual materials that even the very skeptical STD specialists had to accept the need for STDs management reforms. It is expected however to be a long and hard battle to integrate the current STD dispensary system into the primary care reforms.

This issue of integration is being specifically addressed in a proposed pilot in the ZdravReform health care reform pilot site in Zhezkazgan. The University of Heidelberg, with money from an UNAIDS grant is working with the ZdravReform Program on setting up a *pilot to integrate STDs into the primary care*. At this time, the major barrier to this pilot is the apprehensions of the Director of the STD Research Institute, who is afraid to test the syndromic treatment approach in a more urban area. The urban Zhezkazgan however is the best health care reform site available, and would offer close monitoring of the project by the City STD dispensary, and evaluation by the University of Heidelberg and ZdravReform. Negotiations will continue on this proposed pilot- but it should be noted that it is a tremendous step forward in integration that these discussions and arguments even are taking place.

Integrated Management of Childhood Illnesses (IMCI), Kazakhstan

Background

WHO's IMCI strategy combines improved management of childhood illnesses with aspects of nutrition, immunization and several other important influences on child health, including maternal health. Using a set of interventions for the integrated treatment and prevention of major childhood illnesses, the IMCI strategy aims to reduce death and the frequency and severity of illness and disability, and to contribute to improved growth and development. This set of interventions aims to improve practices in both health facilities and in the home.

This strategy lends itself well to integration into family medicine training programs, as well as a short-course retraining program for health care workers in pilot sites. Therefore, ZdravReform is collaborating with WHO, by funding the training costs, and supplying training equipment. WHO is providing technical assistance for training and adaptation, and UNICEF is supplying some essential drugs needed for the program.

Activities

ZdravReform continues its collaboration with WHO on the adaptation and introduction of IMCI in Semipalatinsk City. A *facilitator-training course* was conducted February 8-12, 1999, in which seven facilitators were trained, using the adapted IMCI modules and facilitator's guides, as well as clinical practice. A *participant training course* for 18 people was then conducted February 14-26, 1999. This was the first course conducted for local participants, and showed that the course content and standard training methodology. In addition, ZdravReform funded the costs of two of the facilitators who participated in the Enbekshi pilot training which UNICEF is sponsoring. These two facilitators received some additional experience in training.

In April 1999, a *monitoring visit* was conducted by WHO to Semipalatinsk. The results of this monitoring were satisfactory, as the participants from the February training were observed. The participants correctly identified danger signs, checked immunization status, and properly recorded the patient visit. It is problematic that when only a small percentage of staff are trained in an individual facility, it causes resistance to new changes. There are also some issues with regulations that need to be changed.

Two more trainings will be conducted this year, in July and September/October, and then a WHO/collaborators/Government of Kazakhstan meeting will be held in December to evaluate the pilot.

ZdravReform also participated in a 3 day IMCI adaptation seminar for Uzbekistan, June 29-July 1, 1999. Two pilot sites will be chosen, and one most likely will be one of our health care reform sites, due to the success of the Semipalatinsk pilot.

In terms of *health promotion/health education*, ZdravReform has begun the process of evaluating existing brochures from other agencies, and is planning to

print brochures for both Kazakhstan and Kyrgyzstan. In addition, the STD video developed last year will be used again in the journalist contest/public education campaign which will be conducted again in autumn.

Acute Respiratory Illness (ARI)/Childhood Diarrheal Diseases (CDD)

Background

ZdravReform has been using the ARI/CDD package of training materials adapted from BASICS/WHO/UNICEF in training of primary care health workers in Karaganda Oblast, Kazakhstan (which includes Zhezkazgan health care reform pilot); and in Issyk-Kul Oblast, Kyrgyzstan. A master trainer works in each oblast, with some assistance from other trainers as practical.

Activities; Kazakhstan

Training: During the first half of 1999, Master trainer for Karaganda Oblast, Dr. Natalia Dusembaeva did not achieve her usual high results due to the tragic death of her husband over the New Year. During February-April, she was able to train 48 workers, included among them were 30 physicians, 4 nurses, 2 FGP doctors, 5 infection specialists, and 7 Medical academy professors. Also, one field seminar was done for the workers in an orphanage for infants under 4 year.

Drugs: ORS and antibiotics are in short supply. ZdravReform followed up with UNICEF, which states that it will not supply that oblast. Dr. Dusembaeva will continue to pursue with the health department, and otherwise, mothers will have to somehow find the money for needed drugs.

Monitoring and evaluation: Visits of 1 week were planned for each month. These visits included an observation of the worker component. Temirtau city, Saran city, and Balkhash city were visited in April-June. Problems uncovered during these visits showed that about 50% of non severe cases of ARI were treated incorrectly with antibiotics such as Cotrimazole, ampicillin and penicillin. 100% of ARI cases were diagnosed and evaluated by doctors according to program recommendations. 95% of doctors were doing proper examination of patients and counting the number of breaths. 100% of doctors observed counselled mothers properly.

Additional activities: In February, two training courses of one week length in ARI/CDD were conducted for 20 participants per course. The participants were from the six Schools of Medicine's newly established Chairs of Family Medicine. The trainers were from the National ARI/CDD Center and from Taraz City (trainers trained through BASICS project).

In June, in Zhezkazgan, Dr. Dusembaeva was invited by ZdravReform to do ARI/CDD courses for 40 family doctors. She used this opportunity to reinforce the training skills of the local trainers, and to involve the oblast hospital personnel. Reports from the participants were very positive, and Dr. Dusembaeva will make a monitoring visit in a couple of months.

*Statistical data:*³

Infant mortality, of children born in 1997: (defined as all deaths in children under 1 year):

26.3/1000 in Karaganda

24.2/1000 in Kazakhstan

Infant mortality for children born in 1998:

IM rate is 22.3/1000 in Karaganda

IM rate is 22.1/1000 in Kazakhstan

The following numbers were reported by Dr. Dusembaeva, Oblast ARI/CDD coordinator

KARAGANDA	1997 (absolute number)	1998 (absolute number)
diarrheal disease	40	17
respiratory tract diseases	87	75
pneumonia	58	54
acute respiratory tract	26	17

Activities, Kyrgyzstan

In May 1999, Dr. Ludmilla Zemlyanuhina, Head of the Republican ARI/CDD Center in Bishkek did a *monitoring and evaluation visit* to the Issyk Kul oblast. Her visit was part of a Manas team evaluation (Manas is the Republic of Kyrgyzstan's World Bank project implementation unit). Dr. Zemlyanuhina, who was accompanied by Edel Sadykov, the Oblast ARI/CDD master trainer was very thorough and visited every raion in the oblast.

In general, Dr. Zemlyanuhina feels very satisfied with the Issyk Kul program. She believes it is showing positive results, and this is to be expected after 3 years, the normal time to see good numbers. Compared to the rest of the country, Issyk Kul is also performing well.

Major areas that the monitoring and evaluation team reviewed were:

- *Training manuals:* Sufficient manuals have been supplied by ZdravReform for all the primary care health workers. All family doctors have been trained, and most of the other primary health care medical workers (nurses and feldshers). Schemes have been provided to all workers, and for the walls of all FGPs.
- *Recognition of symptoms:* The medical personnel were checked for knowledge of the "6 symptoms" (WHO). Some personnel need retraining. An attestation (formal testing) process will be done to make sure everyone knows the six symptoms.
- *Drugs:* No ORS is currently available. There is enough paracetamol. There are not enough antibiotics, and what is available is being misused. Dr. Zemlyanuhina will talk to UNICEF about getting a new supply of Regidron. She stated that 30% of antibiotics selected are being used improperly. Dr. Zemlyanuhina says the

³ Dr. Dusembaeva was the source of this data. Unfortunately, due to the dissolving of the Maternal Child health division in the Ministry, as well as the move of the capital and the Ministries, to Astana, comparative data for Kazakhstan is questionable and unavailable at this time.

mothers seem to be insisting on buying their own; she will provide the ZdravReform marketing team with an appropriate “two line” slogan which may be used on the walls of the FGPs and on the radio, as part of a mini-campaign to decrease excess use of antibiotics

- *Training of Mothers:* Spot checks on mothers at home showed that many now have the ARI/CDD patient cards. ZdravReform will supply another 20,000 of each type, in a 50/50 Kyrgyz/Russian mix, and thus cover all homes with children under the age of two.
- *ARI timers.* There is at least one for each FGP, and many of the doctors each have their own

In addition, the ZdravReform marketing team at the request of the Oblast Master trainer, Edel Sadykov, performed a Survey of mothers. The 19 mothers interviewed seemed to be reasonably knowledgeable about ARI. Almost all recognized that ARI was an infection of the respiratory tract, more than half knew that it was transmitted through the air. In a list of danger signs, only one or two were recognized, by most of the mothers. The mothers interviewed showed a disturbing interest in the use of antibiotics - 11 of the 19 stated that they would use without the advice of a physician. Most mothers knew to encourage food and water intake during the illness.

Analysis of the child morbidity and mortality data by Dr. Zemlyanuhina shows that the cause of deaths from ARI/CDD appears to be not so much a primary care issue (in the FGP), but instead an issue with the emergency department and the hospital. This is suspected to be due to inappropriate treatment by hospital personnel after the patient is admitted. According to Dr. Sadykov, this problem is detected from numbers showing WHEN children die at the hospital. If they die on the first day, it is probably a primary care issue; if they die later in the stay, it is a hospital care issue. An example of inappropriate treatment in the hospital was described by Dr. Zemlyanuhina who feels that the hospital/ER mistreat patients by using glucose infusion instead of Ringers Lactate (balanced solution).

Previously, ZdravReform supported a one week of training for the hospital level workers, with UNICEF and Republican Center for ARI/CDD trainers. Another training for an additional 20 doctors from all raion children hospitals is scheduled for July. Costs will be shared with Oblast health department.

Statistical data is a tremendous problem, especially in validating its accuracy. The following issues emerged after several discussions with the Republican and the Oblast ARI/CDD coordinators.

- A child who dies is counted by location of residence and where he has regular care; therefore, baby born in IKO, who goes to Osh for trip and dies there, will still be counted in IKO.
- Sometimes data for infant mortality differs between one table and another because the raions (district) report its data directly to the Republican level, bypassing the oblast (regional) department. This causes a misreporting of deaths. It is unclear why the raion would do such a thing, but it apparently resulted in serious errors in recent calculations and had to be refigured.
- A new prikaz (regulation) in autumn of 1998 orders the Sanitary-Epidemiological Service (SES) to register all diarrhea cases, both simple and complex. This will

result in increase in registered cases, thus morbidity will look like it is increasing. Mortality (reported per 1000) should remain unaffected.

- Pneumonia used to be diagnosed only by X-ray; but now a recent regulation allows clinical symptoms to be used. Therefore, pneumonia cases may have an apparent increase.
- Morbidity rates anecdotally are reported as being poorly kept, with doctors manufacturing information.

After the visit of Dr. Zemlyanuhina, the following data for Issyk-Kul was provided by the Ministry. In Kyrgyzstan as a whole, the trends for ARI/CDD are improved. For example, the main cause of IM in 1997 was ARI; but in 1998, the cause was perinatal.

Key Indicators, years 1994-1998

Issyk Kul Oblast, Kyrgyzstan

Kyrgyzstan ⁴	1994	1995	1996	1997	1998
Infant Mortality, (0-1yr) per 1,000	29.1	28.1	25.9	28.3	26
Issyk Kul Oblast (total)					
Infant Mortality (0-1yr) per 1,000	26.7	29.3	23.4	30.7	21.6
% of Children <1 yr, dying within 24 hrs admission to hospital	23.2	26.2	35.3	28.5	28.0
% of infant mortality, CDD as diagnosis	13.0	26.7	9.2	12.9	6.0
% of infant mortality, ARI/pneumonia as diagnosis	32.6	33.9	34.7	36.8	31.7

Source: Ministry of Health, Republican Center for ARI/CDD

In Kyrgyzstan, USAID ZdravReform has made an extensive effort towards creation of a *computerized clinical database*, based on a clinical information which is completed at the time of the patient visit. This clinical information data base will be able to provide information on categories of the population; type of office and home visits, vaccination, specialist referrals, test and procedure, diagnosis, pharmaceuticals. There will be a link between the outpatient data base and the hospital data base. It is felt that over time some of the problems in statistical collection should improve.

Public education during this period included: radio programs and interviews, distribution of brochures, and newspaper articles on ARI and CDD, and breast feeding.

Promotion of Breast feeding was added to the program this spring, after UNICEF selected Karakol as an "Internationally Certified Breastfeeding City". The ZdravReform marketing team is now distributing brochures provided by UNICEF.

For the rest of the year, Dr. Sadykov will continue his work in monitoring and evaluation of the workers who have already been trained, finish the training of the nurses and feldshers, train hospital and emergency personnel as needed.

⁴ Kyrgyzstan infant mortality data from DHS was used here for 1994, 1995, 1996. Data from 1997 and 1998 may differ depending on the source (this source was from Dr. Zemlyanuhana, who says the Ministry may adjust the data further to account for factors mentioned in this report.

Family Medicine Training Centers (FMTC)

Activities, Kazakhstan

ZdravReform has been supporting the work of the Almaty Postgraduate Training Institute, Family Medicine faculty, which is responsible for retraining of family doctors in the pilot regions and elsewhere. This Family Medicine faculty has been received some technical assistance from British Know-how Fund, as well as been sent on study tours by USAID/ZdravReform. In addition, there have recently been created chairs of family medicine at 7 other medical schools. There still is no formal certification program ensuring the quality of the postgraduate program, and this will be addressed by Zdravreform in the next part of the year. In addition, some assistance for the pre-service program is needed. It is planned that British Know-How will assist in this under the World Bank. ZdravReform is supporting training in infectious disease for the schools (see ARI/CDD training), and hopes for eventual integration of the materials into the family doctor curriculums.

Activities, Kyrgyzstan

There are 3 Family Medicine Training Centers in Kyrgyzstan located in Bishkek, Karakol, Issyk Kul and Osh City, Osh. World Bank is supporting the work of the Bishkek site, and USAID/ZdravReform is providing support to the Karakol and Osh centers. ZdravReform Program closely collaborates with the Scientific Training Learning Institute (STLI), (under funding from World Bank), which sponsors American family physicians.

These American doctors have provided considerable input to the curriculum development process, as well as having personally trained 18 family medicine trainers, between Karakol and Bishkek branches. At this time, these trainers are working in the Karakol Center, training 225 doctors, Bishkek Center, training 1000 doctors, and in Osh, training 200 doctors. There has also been a start in training of family practice nurses. The Bishkek Center is working on a trainer of trainers program where a cadre of qualified nurse trainers will be developed. Issyk Kul will then use one of these graduates to start a nursing training program.

Modern protocols on ARI/CDD, STDs, and Tuberculosis have been integrated into the training curriculums. In this manner, all of the family medicine trainees are exposed to modern treatment protocols for infectious diseases, as well as establishing a sustainable system for future trainees.